

Japan  
Fisheries  
Association



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Views and Opinions of Japan's Fisheries Industry

JFA President's Lecture

The Changing Environment surrounding Fisheries  
Demand for seafood is expanding worldwide while fish consumption is  
declining among young Japanese: JFA President Nakasu

**I**sao Nakasu, President of the Japan Fisheries Association, delivered a lecture at a meeting of the Japan Fisheries Journalists' Association on November 27, 2006. Commenting on the changes in the recent situation surrounding fishery products and food in general, Nakasu pointed to (1) the expanding consumption of seafood in China and Western countries while the world's fishery production has come to a limit; (2) the increasing use of grains for bio-energy; and (3) the tendency among young Japanese to eat less fish. He noted, as his personal view, that "a critical situation is emerging around the procurement of food."

Increased production of food supported population growth

Previously, there had been debates on food security or the possible advent of a food crisis. But we all took it for granted that, in actuality, the time when we have to face such a crisis would never come about. When I look into the recent situation surrounding fisheries, however, I cannot help but feeling that a critical situation may be creeping towards us, although I qualify this as my personal view.

We can trace the history of food supply in Japan roughly as follows. There are historical data that show Japan was inhabited by about 250,000 people in the Jomon Period about 12,000-13,000 years ago, and about 600,000 people in the succeeding Yayoi Period from about 2300-2400 to 1700 years ago. Scholars now believe that the people from these two periods were the ancestors of the present-day Japanese.

World seafood production trend  
(Unit:10,000 tons)

	1970	1990	2000
World total	6,274	9,834	12,442
EU	731	742	758
N. America	405	729	654
Japan	874	1,017	574
China	407	1,475	4,103
Asia	971	2,133	2,727

The population then grew to 4.5 million by the Nara Period (710-784 A.D.). Historical data show that the population subsequently continued a gradual increase to reach 12 million by the time around the end of the Toyotomi government to the beginning of the Edo Period (1603-1868).

Looking back into the history of Japan, we find three periods when the population saw a rapid growth. The first is the first half of the Edo period when the population doubled to 26 million. The speedy growth of the population in these years after the Warring States Period is ascribed to the stabilization of the central government, the encouragement of agrarian development by the lords of provinces, and the well-established regional governance throughout Japan.

Contrary to our expectation, the population did not increase visibly in the latter half of the Edo Period. We have reports that severe famines, such as the Great Tenmei Famine of 1782-87, caused the population to shrink by 5-6%. Toward the end of the Edo Period, however, the population grew again as manufacturing industries developed in the rural areas as well, and the food production increased through technological renovations.

The second conspicuous population growth occurred in the period from the end of the Edo Period to the Meiji Period (1868-1911). The domestic population swelled from 38 million to 60 million.

The third growth period, as you can easily imagine, came after World War II. Japan's population, which stood at 75 million in 1945, sharply expanded to 124 million. But the population that continued growth over such a long term has now come to a turning point as Japan's birth rate has begun to decline.

When we look at the three rapid growth periods, we come to know that the increase in the postwar period differs in contents from the first two periods. In the former, the increased food production supported the population growth. The increase in population in these periods was brought about by increased food production as a result of the expansion of arable land, the spread of irrigation

## Trend in world population and grain production

	1960	2000
arable land	1.27 billion ha	1.37 billion ha
grain harvest space	650 million ha	670 million ha
grain production	900 million tons	2.1 billion tons
grain harvest per unit	1.4tons/ha	3.1 tons/ha
population	3 billion	6.1 billion

systems, species improvement, and the expanded production of fertilizers. Arable land, which comprised only about one million hectares in the Nara Period, expanded to 6.08 million hectares in the peak year of 1962. But it was later reduced to the present 4.6 million hectares.

## Postwar population growth depended on imports

Although arable land decreased in the postwar years (the third fast growth period), food supply showed an increase which resultantly supported the population growth as well. What was characteristic to this period in Japan was that imported food came to account for 60% of the overall national food supply while the nation could secure a domestic food self-sufficiency rate of only 40%. In this respect, this period can be said to be epoch-making. In those years, Japan became one of the richest nations in the world, but its prosperity depended on imports.

As in the case of the sharp population growth in Japan, the world's population also increased supported by increased food production. A table on the trend of the world population and grain production for the 40 years from 1960 to 2000 shows that grain production more than doubled from 900 million tons to 2.1 billion tons while grain farmland remained more or less unchanged. Harvest volume per hectare also jumped about 2.5-fold from 1.4 tons to 3.1 tons. In this period, the world's population also doubled from 3 billion to 6 billion.

The global population has increased by 420 million since 2000 but grain production has stayed at around 1,967.8 million tons, showing that there has not been such a drastic increase in production per unit space as in the years after the 1960s. In other words, production volume fell short of consumption volume, suggesting that the food stockpile could decrease in the years ahead.

Another serious issue we are facing is the fact that food life is being enhanced in China, a country having a population of one fifth of the world's total population. The White Paper on Agriculture for this year analyzes the changes in calorie consumption by the Chinese by categories of staple foods and secondary components (side dishes). The overall calorie intake showed an increase of about 10% from 2,700 kilocalories in 1990 to 2,950 kilocalories in 2000, while calorie intake from side dishes almost doubled from 650 kilocalories to 1,050 kilocalories. Similar trends can be observed in all the countries that achieved rapid income growth. The transformation from a cereal-centered diet to one attaching importance to secondary components is advancing in China having a population of 1.4 billion. This means a rapid expansion in the consumption of livestock or fishery products.

Livestock is raised by cereals. Four kilograms of corn is needed to produce one kilogram of poultry meat. In the case of pork and beef, even larger quantities of cereals are needed. Increased consumption of livestock products causes the use of cereals in quantities several times larger than in previous years.

India is in a similar situation as China, but in the case of India, about one fourth of the populace is said to be vegetarians. Furthermore, as Hindus do not eat beef and Muslims do not eat pork in India, the consumption of livestock products may not expand so fast as in China. In terms of animal protein, the consumption of marine products could grow by a larger margin in India.

As a new issue to tackle, I can cite bio-fuel sources. Amid the trend for rising oil prices, bio-fuel is attracting attention as a leading clean substitute energy source. The mainstay fuels are corn-based ethanol and soybean-based bio-diesel oil. In the United States, about 12% of the corn produced is used for the production of ethanol. It is predicted that this proportion will rise to 24% by 2015. Considering that oil prices will continue an upturn for some time to come, it is anticipated that the use of corn for fuel production will continue to increase, possibly becoming a factor to restrict food consumption. I am one who feels a sense of crisis about the present situation, and I am concerned that a food crisis could become a reality.

## Seafood consumption in China expanded fourfold in 10 years

When we direct our attention to seafood against the background I have mentioned thus far, we find not so many drastic changes in the world's fishery production: the total production now stands at 120 million tons, of which around 90 million tons come from the oceans. It is said that over 70% of the fish species are either utilized to their maximum limit or are in the state of depletion. While production has almost hit the ceiling, consumption is growing rapidly around the globe. Notably the growth in the European Union (having 15 member countries) and China is phenomenal.

In the EU, groundfish are the mainstay of consumption, and harvests of those fish are decreasing while imports are increasing. Some analysts view that the demand for seafood has increased as the consumption of livestock meat has not recovered on fears that in the wake of the occurrence of BSE and avian flu in Europe, those diseases could be contagious to humans. The sushi boom that followed further prompted the growth in the consumption of fish in Western countries.

In China, seafood consumption expanded fourfold in the decade from 1990 to 2000, causing the expansion of global fish consumption and driving seafood prices higher.

## The turning point in changes has been passed

In economics, it is said that there are broadly two approaches to economic analysis. The first is the "bird's-eye analysis," which is designed to provide a macroscopic view covering the large scope of the economy as a whole. The second is the "insect-eye analysis," designed to look

into details in a narrowly limited area. Add to this, some economists say there is the “fish-eye analysis,” designed to grasp the change in tides (trends) in a sensitive way. When some thing is valued at 100 yen, it is vital to determine whether the value of the 100 yen is in the process of rising (strengthening) or in the process of falling (weakening). When we try to look at the relations of supply and demand from the “fish-eye” viewpoint, we will know changes are occurring in the basic trends. Some experts assert that “the point of change” has already been passed.

However, it seems to me that the situation in Japan somewhat differs from the global trend. I feel so because, while demand for fish has been increasing around the globe, a contrary phenomenon is observed among young Japanese people, in other words, they tend to stay away from fish consumption. I have with me the results of research on the estimated per-capita consumption by age bracket based on the price paid by household in Japan for fresh fish. According to that research, fish consumption shows an increase as the age advances for people over 40, as often pointed out. In 1980, the younger generation aged between 10 and 19 ate 10.3 grams of fresh fish on the average. In 1990, when this age group moved up to 20-29, consumption declined to 6.7 grams, further dropping to 6.5 grams in 2000 when they became 30-39. This shows that fish consumption shrank as age advanced.

#### World population estimates

2006	2010	2050
6.53 billion	6.83 billion	9.22 billion

#### Young Japanese visibly staying away from fish consumption

Although Japanese are generally called the people of a fish diet, they had not eaten fish in such a large amount until the end of World War II. The mainstay in the Japanese food life had been rice, sweet potatoes and vegetables. Probably they had been eating about one horse mackerel once a week at best. But fish consumption became active since 1960, partly helped by high economic growth starting around that time. Japanese fish consumption reached a peak in the period from 1998 to 2001, with consumption starting to decline in 2002. At present, the generation of so-called “baby boomers” tends to eat fish, supporting the overall consumption volume. However, the population will diminish as aging of this generation advances, with fish consumption also falling off. On the other hand, the tendency of young people of not eating fish is deemed to continue, showing a clear contrast with the rest of the world where consumption of fish began increasing.

On the trade front, Japan’s overall imports of fishery products in 2005 totaled 1.6 trillion yen, down 1.6% from the previous year, while those in January-September 2006 only edged up 0.7%. The import volume of mainstay fresh, frozen and chilled products in 2005 dropped 4.4% to 2.29 million tons, with their import value staying at 1.17 trillion yen. The volume in January-September 2006 came to 1.46 million tons, with value also falling 1.3%. By contrast, import

unit prices are considered to have surged about 10%.

Japan’s exports of fishery products, which had generally stayed at around 10% of imports in volume, exceeded 20% in 2006, while domestic production volume did not grow. Here we can see the trend in seafood trade is beginning to change in the same way as the consumption trend is changing.

## FAO COFI

### FAO COFI Highly Values the Outcome of the Kobe RFMO Joint Meeting —ICFA presents its comments to FAO meeting in Rome—

The 27<sup>th</sup> Session of the Committee on Fisheries of the United Nations Food and Agriculture Organization (FAO COFI) was held in Rome, March 5-9. What follows are major results of the discussion at the meeting.

#### (1) Reinforcement of the functions of regional fisheries management organizations

Japan reported on the results of the first joint meeting of regional tuna fisheries management organizations (RFMOs), held in Kobe, Japan, in January this year. The achievement of the meeting was highly evaluated by several FAO member countries. FAO COFI confirmed the importance for each RFMO and related countries to act in the years ahead in line with the Course of Action adopted at the meeting.

#### (2) Application of the ecosystem-based approach to fisheries

Regarding the management of deep-sea fisheries, Japan proposed, and FAO COFI agreed, to develop technical guidelines for the management of deep-sea fisheries, including the identification of vulnerable marine ecosystems and the assessment of impacts by fisheries pursuant to the 2006 U.N. Resolution on Fisheries.

#### (3) Measures against IUU fishing activities

FAO COFI confirmed that it will continue to focus on measures against illegal, unregulated and unreported (IUU) fishing activities in the future. Further, COFI members supported that FAO should take the initiative of launching the work to develop a new treaty regarding the measures on Port States. Members also supported that FAO should initiate discussions on the possibility of developing a global list of fishing vessels.

#### (4) Review of the progress of the Code of Conduct for Responsible Fisheries and international plans of action

FAO COFI confirmed the need to promote the implementation of the Code of Conduct for Responsible

Fisheries and four International Plans of Action (i.e. capacity, IUU, shark and seabirds). Regarding the management of fishing capacity, notably, the committee recognized the need to reinforce its effort. Further, it was proposed that guidelines be developed for the promotion of the International Plan of Action on Seabirds, and it was agreed that FAO should cope with this issue in collaboration with related organizations.

At the meeting, the International Coalition of Fisheries Association (ICFA), representing the world's fishers, called on FAO to further promote sustainable fisheries. ICFA's comments on important agenda items are set forth below.

#### Combating IUU Fishing.

- **The International Coalition of Fisheries Associations (ICFA) represents fishing operators that are legal, that are regulated and that report their catches.**
- **IUU fishing undermines our businesses.**
- **ICFA takes the view that those who fish under flags of non-compliance operate at considerable cost advantage and have no obligations to be responsible fishers.**
- **Our members seek a "level playing field," that is, we need governments to take firm action to ensure that non-compliant states and their fishers eliminate flags of convenience and IUU fishing.**
- **Measures to combat IUU fishing should result in economic DISINCENTIVES for those who fish illegally.**
- **ICFA supports COFI efforts to stop IUU fishing and to protect vulnerable marine ecosystems.**
- **ICFA also supports FAO's work to elaborate the Model Scheme on Port State Measures.**
- **As the commercial sector with human and financial capital at risk, ICFA commits itself to remain involved as a stakeholder in this process.**

#### Strengthening RFMOs and Their Performance.

- **ICFA supports the implementation of steps that will result in measurement of the performance of RFMOs against a common standard.**
- **ICFA urges FAO to facilitate the process initiated to amend the Indian Ocean Tuna Commission (IOTC) Agreement, following the consensus reached by all IOTC members during the Third Special Session of the IOTC 17-19 May 2006, in Goa, India.**
- **The intent of this work is to make the IOTC a fully open and independent RFMO that could both strengthen the management of tuna resources by incorporating all participants in the Indian Ocean fishery into the IOTC and that could improve the performance of the IOTC in managing tuna stocks of the Indian Ocean in a sustainable manner.**

## Whaling

### Letter of Protest concerning Sea Shepherd's terroristic actions against Japan's whale research

*On 28 February, 2007, Dr. Hiroshi Hatanaka, Director-General, the Institute of Cetacean Research, and Mr. Kazuo Yamamura, President, Kyodo Senpaku Kaisha, Ltd., jointly issued a letter of protest to the Sea Shepherd Conservation Society, condemning its unjustified and dangerous terrorist activities against Japan's whale research fleet in the Antarctic early this year. What follow is the full text of the letter.*

Following last year's harassment, from 8 to 14 February 2007 Sea Shepherd perpetrated criminal obstructive actions against Japan's whale research vessels operating in the Antarctic. Japan's whale research is carried out making use of Kyodo Senpaku Kaisha Ltd. vessels by the Institute of Cetacean Research under a special permit issued by the government of Japan pursuant to the International Convention for the Regulation of Whaling. Accordingly, Japan's whale research in the Antarctic is perfectly legal.

This year, Sea Shepherd resorted to throwing a large number of smoke bombs and bottles containing a harmful chemical substance on the decks of the mother ship Nisshin Maru and the non-lethal research dedicated sighting vessel Kaiko Maru, resulting in two injured crewmen. Sea Shepherd malicious attempts against the research vessels also included releasing ropes and nets to entangle their screw. Furthermore, the two Sea Shepherd vessels came to either side of the nonresistant Kaiko Maru stopping her from continuing sailing and rammed her three times, causing big damage to her hull.

Such vicious and reckless actions by Sea Shepherd not only violate the international agreements established in order to prohibit piracy and to guarantee the safety of navigation. They are inexcusable criminal acts that go against the practices of good seamanship. What is more, they are spiteful and mindless terrorism perpetrated in disregard of human life.

We condemn these actions by Sea Shepherd in the strongest possible terms. We strongly request that this kind of terrorist behavior which endangers human life is not repeated in future. Last year, the International Whaling Commission adopted by consensus a resolution declaring that the Commission and its contracting Governments do not condone any such wrongful actions that are a risk to human life and property in relation to whale research activities of vessels at sea. We also appeal strongly to the international community to refrain from providing support in any form, including their granting of ship nationality, to such terrorist organization.